

second polymer composition that is a different polymer composition from the first polymer composition.

20. The composite nonwoven web of claim 18 wherein the first segment and the second segment are coplanar.

Support for the amendments to Claim 1, can be found on page 5, lines 19-23. Support for new Claims 16 and 19 can found on page 6, lines 18-19. Support for new Claims 17 and 20 can be found in the Figures. Support for new Claim 18 can be found in original Claim 1; page 2, lines 26-29 and on page 5, lines 19-23.

#### **Remarks**

Claims 1-10 stand rejected as being anticipated by U.S. 5,413,849 to Austin et al. (hereinafter Austin). Amended Claims 1-10 and new Claims 16-20 are directed to a nonwoven web comprising a first segment comprising first continuous filaments and a second segment comprising second continuous filaments wherein said first segment and second segment extend adjacent one another and abut one another. Austin describes composite elastic nonwoven fabrics comprising a first layer of elastomeric filaments and a second layer of staple fibers (col. 3, lines 59-61) in a multiple layer, laminate structure. The first layer and the second layer described by Austin do not abut one another as is presently claimed. Accordingly, Applicant submits that the rejection of 1-10 as being anticipated by Austin is improper and should be withdrawn.

Claims 1-10 stand rejected as being unpatentable over Austin in view of U.S. 4,767,586 to Radwanski et al. (hereinafter Radwanski). Amended Claims 1-10 and new Claims 16-20 are directed to a nonwoven web comprising a first segment comprising first continuous filaments and a second segment comprising second different continuous filaments wherein said first segment and second segment extend adjacent one another and abut one another. Austin fails to disclose, teach or suggest a nonwoven web comprising a first segment and a second segment that abut one another as discussed above. Radwanski describes a method of forming an integral fibrous web that produces a fibrous web with two different zones of two differing compositions that are laterally adjacent one another. However, the method described by Radwanski is directed to methods of forming fibrous nonwoven webs "from a source material such as pulp sheet, or other fiberizable feed source" (col. 1, lines 20-23). "[T]he source material is disintegrated,

shredded, fiberized or otherwise separated to produce a product material in the form of *discrete, individual fibers*" (emphasis added col. 1, lines 23-26). The fibers in the resulting nonwoven web taught by Radwanski are not continuous as claimed in the present invention. Radwanski fails to disclose, teach or suggest two abutting layers that each comprise continuous filaments and Austin in view of Radwanski fails to disclose, teach or suggest two abutting layers that each comprise different continuous filaments. The staple fibers in the second layer described by Austin are not continuous fibers and the first layer and second layer do not abut one another. Accordingly, Applicant submits that the rejection of 1-10 as being unpatentable over Austin in view of Radwanski is improper and should be withdrawn.


Moreover, Austin is directed to a composite elastic nonwoven fabric that comprises an elastic component, layer surrounded by staple fiber layers on each side of the elastic layer to improve the feel of the resulting laminate (col. 1, lines 28-35). The feel of the laminate is minimized or eliminated by reducing contact with the rubbery feeling elastomeric, inner layer (col. 1, lines 28-35 and lines 50-52). A person of ordinary skill in the art would not substitute an abutting zone for one of the exterior laminate layers described in Austin because the abutting layer would not reduce contact with the elastomeric layer and improve the feel of the resulting nonwoven composite fabric. Another of the objectives of the laminate fabrics described by Austin is to maintain uniform appearance and mechanical performance of the laminate fabric (col. 2, lines 15-17). Specifically, a fabric having a one dimensional stretch is desirable (col. 55-57). A person of ordinary skill in the art would not add or substitute an abutting zone of a different composition, shape, size, etc. to the laminates described by Austin because an additional abutting zone of a different composition, shape, size, etc. would produce a nonwoven web having regionally distinct properties. A nonwoven web having regionally distinct properties is an objective of one aspect of the present invention (page 6, lines 18-23 of the present patent application) and is not an objective of Austin. The objective of Austin is to produce a fabric having high elasticity "while maintaining uniform appearance and mechanical performance" (col. 2, lines 15-17). Accordingly, it would not have been obvious to person of ordinary skill in the art to place the segment of Austin in side-by-side arrangement instead of a layer arrangement in order to facilitate manufacture as the Examiner suggested in the Office Action mailed August 2, 2002. Applicants respectfully request that the pending rejections of Claims 1-10 are withdrawn.

**Conclusion**

Applicants respectfully submit that Claims 1-10 and 16-20 are in condition of allowance and request that the pending rejections are withdrawn and a Notice of Allowance issued. Should any questions arise with regard to this application the Examiner is encouraged to contact the undersigned at (770)-587-8620.

Please charge any prosecutorial fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

Respectfully submitted,

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**CERTIFICATE OF MAILING**

I, Christos S. Kyriakou, hereby certify that on November 4, 2002, this document is being deposited with the United States Postal Service as first-class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

By:   
Christos S. Kyriakou

By this Response and Amendment, the Specification and Claims were amended as follows.

**On page 1, line 2, the specification was amended by inserting the following:**

**CROSS-REFERENCE TO RELATED APPLICATIONS**

This application claims the benefit of U.S. Provisional Application No. 60/159,242 filed October 13, 1999.

**On page 10, the paragraph beginning at line 19 and continuing to the following page was amended as follows:**

The continuous filament nonwoven webs can be prepared utilizing conventional web forming processes that have been modified as described herein. As examples, both spunbond processes and meltblown processes can be used in conjunction with the present invention. Regional fibers of distinct polymer composition can be achieved by modifying conventional spin pack assemblies. Spin packs generally comprise a series of stacked plates that have a pattern of interconnecting channels and/or apertures through which multiple polymer streams can flow. The polymer streams are maintained separate as the respective polymer streams flow throughout the spin pack to the distribution plate, spinneret and/or die capillary. Examples of such spin packs are described in US Patent No. 5,344,297 to Hills, U.S. Patent No. 5,466,410 to Hills, U.S. Patent No. 5,853,635 to Morell et al. and U.S. Patent [Application] No. [08/955,719] 5,989,004 to Cook; the entire contents of each of the aforesaid references are incorporated herein by reference. Conventional spin packs can be modified to deliver the respective polymer streams to the desired outlet openings within the spin plate or spinneret. In addition, distinct first and second regions can be achieved by merging separate spunbond fiber streams, prior to web laydown, to create a single coflowing filament stream upon exit from the fiber draw unit. By merging the filaments prior to web laydown, the resulting composite web can have an area where the first and second filaments become mixed, i.e. where the first and second regions partially overlap. Thus, the first and second regions become and/or can be bonded such that the interface between the first and second regions is substantially similar to the appearance and/or structure of that of the first and/or second regions. This allows formation of a unitary composite nonwoven web without the need to fixedly attach the two regions by external means such as would be required by simply seaming, stitch bonding, adhesively bonding two separate nonwoven webs together. In addition, after fiber laydown and formation of the web, the composite nonwoven web can

be further acted upon and/or processed as desired. As an example, the entire web can be bonded to form a durable, integrated web. The unitary nonwoven web can be thermally point bonded and/or through-air bonded as desired in order to impart additional integrity thereto.

**Claims 1 was amended as follows:**

1. A composite nonwoven web comprising:

a nonwoven web having a machine-direction and a cross-direction and comprising a first segment and a second segment wherein said first segment and second segment[s] extend adjacent one another in said machine direction wherein said first segment and said second segment abut one another;

said first segment[s] comprising first continuous filaments and wherein said first continuous filaments comprise an elastomer;

said second segment[s] comprising second continuous filaments and wherein the second continuous filaments are different from the first continuous filaments; and

wherein said first continuous filaments proximate said second [region] segment and said second continuous filaments proximate said first [region] segment are in a confluent relationship with one another and form a unitary nonwoven web.

**New Claims 16-20 were added as follows:**

16. The composite nonwoven web of claim 1 wherein the first continuous filaments comprise a first polymer composition and the second continuous filaments comprise a second polymer composition that is a different polymer composition from the first polymer composition.

17. The composite nonwoven web of claim 1 wherein the first segment and the second segment are coplanar.

18. A composite nonwoven web comprising:

a nonwoven web having a machine-direction and a cross-direction and comprising a first segment and a second segment wherein said first segment and second segment extend adjacent one another and abut one another;

said first segment comprising first continuous filaments;

said second segment comprising second continuous filaments wherein the second continuous filaments are different from the first continuous filaments; and

wherein said first continuous filaments proximate said second segment and said second continuous filaments proximate said first segment are in a confluent relationship with one another and form a unitary nonwoven web.

19. The composite nonwoven web of claim 18 wherein the first continuous filaments comprise a first polymer composition and the second continuous filaments comprise a second polymer composition that is a different polymer composition from the first polymer composition.

20. The composite nonwoven web of claim 18 wherein the first segment and the second segment are coplanar.